

FIG. 1

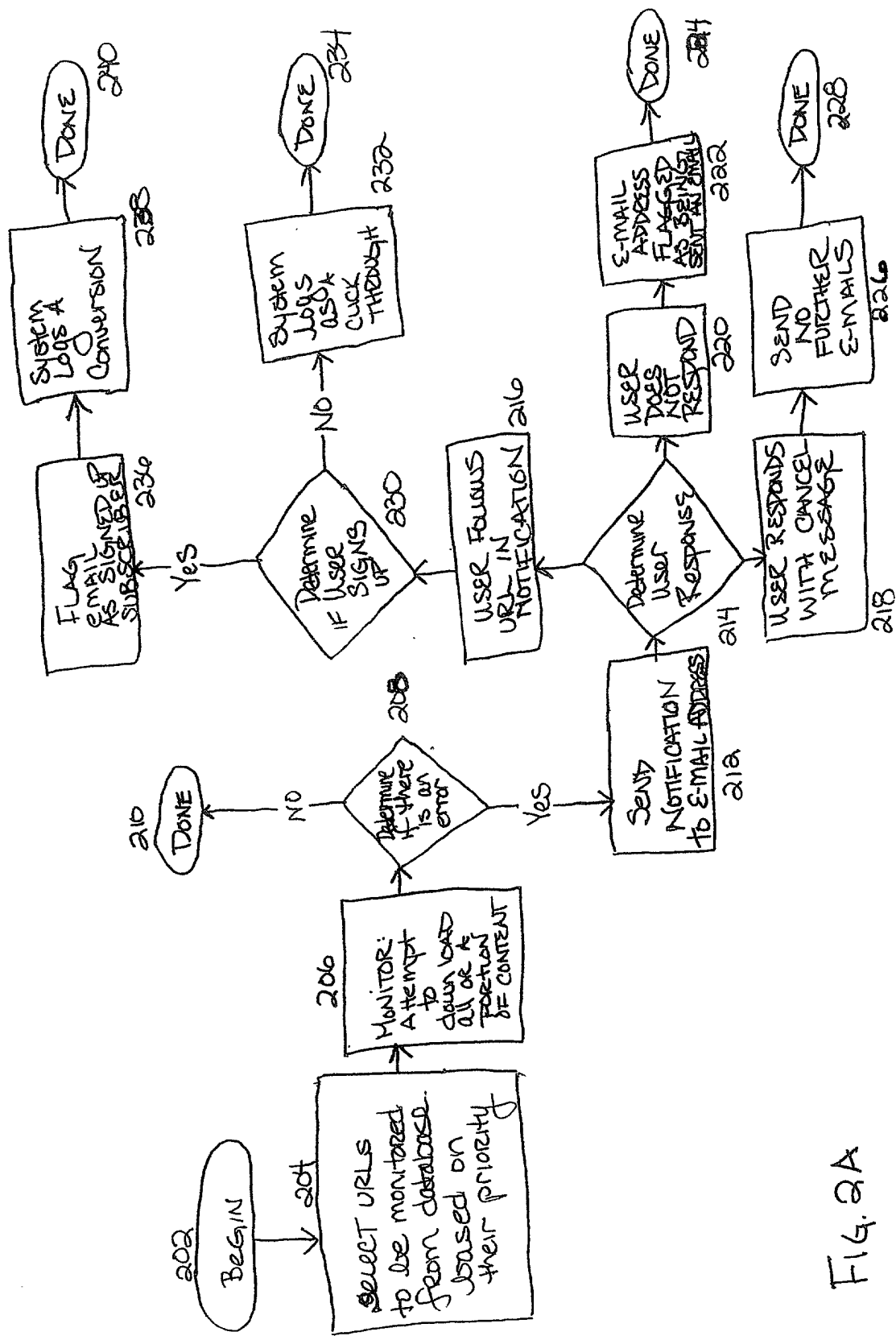


FIG. 2A

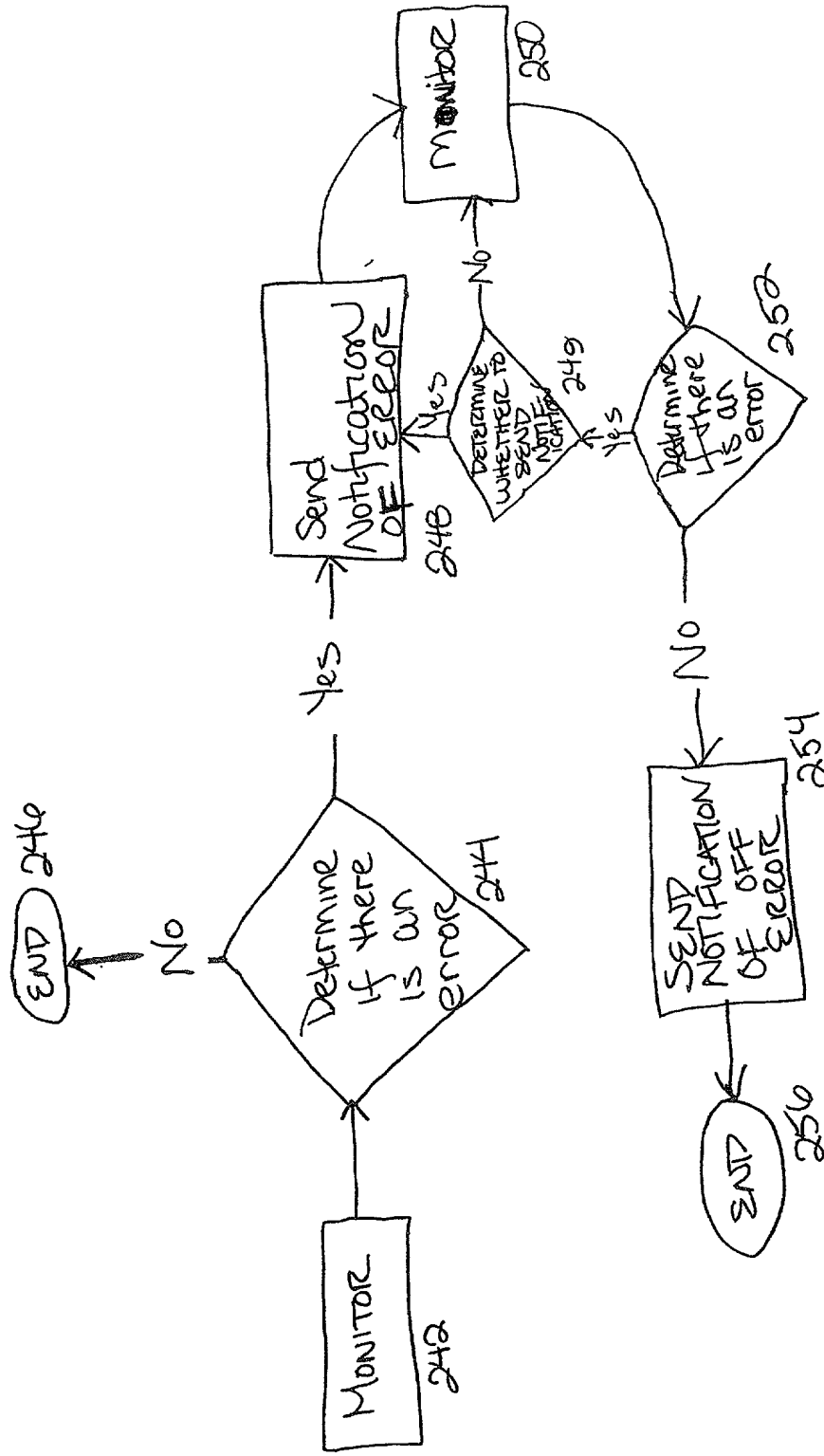


FIG. 2B

Email ID: ProActive Monitoring 1  
Audience: Emails spidered from the Internet

Subject:  
Error in Reaching <http://www.someurl.com>

Body:  
There appears to be a problem in reaching your web site at <http://www.someurl.com> 301

As recommended by the Robot Guidelines, this email is to explain our robot's activities and to let you know about the trouble in reaching your site. InternetSeer does not store or publish the content of your pages, but rather uses the link information to update our map of the World Wide Web.

If you would like to learn more about InternetSeer.com or to continue to receive these performance reports at NO CHARGE, click here: 303  
[http://www.internetseer.com/signup.asp?pmc=12345&email=\"joe@someemail.com\"](http://www.internetseer.com/signup.asp?pmc=12345&email=\)

If you prefer not to receive these occasional error notices please let us know by returning this email with the word "remove" in the subject line. 302

Vijay Singh  
[vijay@internetseer.com](mailto:vijay@internetseer.com)  
Customer Service  
<http://www.InternetSeer.com/aboutus.asp>  
Web Site Monitoring

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##Remove: [joe@someemail.com](mailto:joe@someemail.com)##

Fig.3

Email ID: ProActive Monitoring 4  
Audience: Emails spidered from the Internet

Subject:  
Your Web Site is Back On-Line

Body:  
We are pleased to inform you that <http://www.someurl.com> is back up and is no longer on error.

If you feel these notifications have been valuable and would like to continue to receive these performance reports at NO CHARGE, click here:  
<http://internetseer.com/services/freeactivation.jsp?noti=4&pmc=12345&email='joe@someemail.com'>

Vijay Singh  
[vijay@internetseer.com](mailto:vijay@internetseer.com)  
Customer Service  
<http://www.InternetSeer.com/aboutus.asp>  
Web Site Monitoring

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##Remove: [joe@someemail.com](mailto:joe@someemail.com)##

FIG.4

Alert Notifications should follow the following process and format  
For the first alert:

Sender: [Alert@InternetSeer.com](mailto:Alert@InternetSeer.com)

Subject Line: InternetSeer Alert

**First On Error Alert:**

The following URL is on Error

---

URL: <http://www.abc.com>

IP Address: 198.43.56.83

Time: 11:30:30 AM, Wednesday, September 18, 2000 (Greenwich Mean Time)

Error Code: PUT ERROR INFORMATION HERE

---

Please visit [www.internetseer.com/myinternetseer/index.jsp](http://www.internetseer.com/myinternetseer/index.jsp) for additional information on the error we have found in reaching your Web site and to get up-to-the-hour performance reports.

Should you reach your Web page click the Refresh button as the Web page may be cached on your system.

If you are still able to reach the Web page on error, please note, that we are testing from Philadelphia, Pennsylvania, in the United States and have found an error in the path to your Web site. Your request to the Web site may take a different path that might bypass the error we detect. We will continue to monitor your web page until the error is resolved.

False Alarm Protection: After detecting the first error we will follow a quality assurance process to confirm our results. After confirming the Web site is on error we send the first Alert email.

Fig. 5

**From:** InternetSeer.com [ndsub@mail.InternetSeer.com]  
**Sent:** Wednesday, November 08, 2000 9:02 AM  
**To:** gene@minddrivers.com  
**Subject:** InternetSeer Monitoring Service

**Do your payroll from**

## Timeout

### First On Error Alert:

The following URL is on Error:

---

URL: <http://www.denise.com>

IP Address: 208.21.142.9

Time: November 8, 2000 1:58:09 AM PST

Error Code: Socket Timeout

---

Please visit <http://www.internetseer.com/myinternetseer/index.jsp> for additional information on the error we have found in reaching your Web site and to get up-to-the-hour performance reports. Should you reach your Web page click the Refresh button as the Web page may be cached on your system.

If you are still able to reach the Web page on error, please note, that we are testing from Philadelphia, Pennsylvania, in the United States and have found an error in the path to your Web site. Your request to the Web site may take a different path that might bypass the error we detect. We will continue to monitor your web page until the error is resolved.

False Alarm Protection: After detecting the first error we will follow a quality assurance process to confirm our results. After confirming the Web site is on error we send the first Alert email.

FIG. 6

FINAL Alert (This should be sent 30 minutes from first detecting the error.)

Sender: [Alert@InternetSeer.com](mailto:Alert@InternetSeer.com)

Subject Line: InternetSeer FINAL Alert

**Final ALERT:**

**The following URL continues to be on Error**

---

URL: <http://www.abc.com>

IP Address: 198.43.56.83

Time: 12:00:30 PM, Wednesday, September 18, 2000 (Greenwich Mean Time)

Error Code: PUT ERROR INFORMATION HERE

The error was first detected at 11:30:30 AM EDT, Monday, September 18, 2000

---

Please visit [www.internetseer.com/myinternetseer/index.jsp](http://www.internetseer.com/myinternetseer/index.jsp) for additional information on the error we have found in reaching your Web site and to get up-to-the-hour performance reports.

WE WILL CONTINUE TO MONITOR YOUR SITE UNTIL THE ERROR IS RESOLVED.

FIG. 7



RECOVERY NOTIFICATION

Sender: [Alert@InternetSeer.com](mailto:Alert@InternetSeer.com)

Subject Line: InternetSeer Recovery

**RECOVERY NOTIFICATION:** The following URL is Off Error

ERROR IS NO LONGER DETECTED

---

URL: <http://www.abc.com>

IP Address: 198.43.56.83

Time: 4:00:30 PM, Wednesday, September 18, 2000 (Greenwich Mean Time)

Total Time on error: 4:30:00.

---

Click hear to login and view your current Web site's performance report at  
<http://internetseer.com/myinternetseer/reports.jsp>

InternetSeer

F16.8

**DON'T PULL ANY PUNCHES**

**Recovery Notification:** The following URL is Off Error:

Click here and login and view your current Web site's performance report at <http://www.internetseer.com/myinternetseer/reports.jsp>

[illegible]

F16.9

To: "Kane Bender"  
<kane@internetseer.com>  
Subject: InternetSeer Monitoring Service

Kane Bender  
Subscriber since  
September 06, 2000

Standard Service  
Remotely monitors your  
Web site every hour.  
Every day  
You get:  
Up to 5 free URLs  
monitored  
Unlimited contacts  
Email alerts  
Weekly performance  
reports

How much downtime has  
your Web site experienced  
in the past 30 days?  
11% none  
27% less than 30 minutes  
13% 30 to 60 minutes  
11% 1 to 5 hours  
12% more than 5 hours  
Content Provided By:  
Availability.com

Get top billing on  
search engines  
Writing Internet  
Marketing Plans  
Book Keeping  
Assistance  
Forms & Agreements  
HTML Toolbox

INTERNETSEER  
24-7 Remote Web Site Monitoring

Dear Kane,

Thank you for subscribing to InternetSeer's 24-7 remote Web site monitoring service. As we confirmed to you in a prior email, your registration became effective on September 06, 2000.

In addition to sending alert emails to you when your site goes down, we provide this weekly report detailing the performance of your Web site(s). We welcome your input in helping us provide you with the most useful information to help you manage your business online. Please send your ideas and suggestions to [CustomerService@internetseer.com](mailto:CustomerService@internetseer.com).

To make changes to your account, add additional URLs, contacts and email addresses, you can login at [www.internetseer.com](http://www.internetseer.com). To have us email your Password to you, visit [www.internetseer.com/support/forgotpassword.jsp](http://www.internetseer.com/support/forgotpassword.jsp) and enter your login name, kanebender and password.

Information for: <http://www.typeinuknow.com>

Dates	10/2 8	10/2 9	10/3 0	10/3 1	11/ 1	11/2 •	11/3	
Number of Outages	-	-	-	-	-	1	1	2
Time on Error (HH:MM)	-	-	-	-	-	24:0 0	24:0 0	48:00
Percent Time Up	-	-	-	-	-	0.0	0.0	0.0
Avg Connect Times (secs)	-	-	-	-	-	-	-	-
Avg Download Times (secs)	-	-	-	-	-	-	-	-

FIG. 10

# INTERNETSEER

WEB SITE MONITORING

Welcome to InternetSeer. You are currently logged in.

Information for: <http://www.michaelmcwilliams.com>

Dates	11/2 4	11/2 5	11/2 6	11/2 7	11/2 8	11/2 9	11/3 0	
Number of Outages	1	1	1	1	1	1	1	7
Time on Error (HH:MM)	24:0 0	24:0 0	24:0 0	24:0 0	24:0 0	24:0 0	23:3 4	167:3 4
Percent Time Up	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Avg Connect Times (secs)	-	-	-	-	-	-	-	-
Avg Download Times (secs)	-	-	-	-	-	-	-	-

FIG. 11

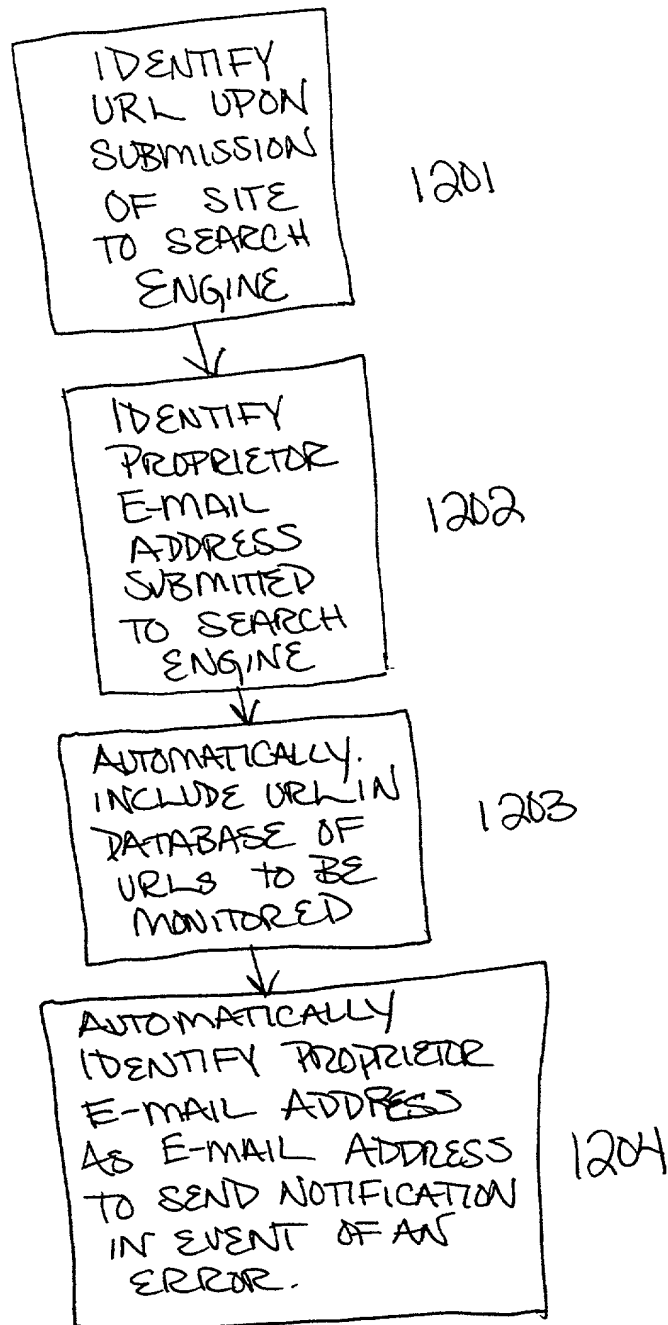


FIG. 12

Email ID: AutoActivate  
Number of emails sent: 100,000+  
Number of e-mails the recipient received before receiving this e-mail: 0  
Audience: People who registered a URL with Claymont.com

Subject:  
Congratulations. Your web site is registered

Body:  
Congratulations! You have submitted your Web site to the  
Claymont.com search engine and Web site monitoring service.  
Your Web site has been registered.

1301

In order to ensure the integrity of our search results,  
Claymont.com remotely monitors every Web site that is registered  
at Claymont.com. This allows Claymont.com to keep its search  
results accurate by removing non-responding Web sites from its directory.

Claymont.com has joined with InternetSeer.com to conduct this ongoing  
monitoring. As part of this service, InternetSeer will monitor your  
Web site every hour, 24-7, and will notify you by email when your site  
is not responding. In addition, InternetSeer will send you weekly reports  
displaying the performance of your Web site over the previous week.  
There is NO CHARGE for this service.

1302

For your convenience, we have provided you with a login name and password  
that allows you to manage your account profile.

Your login Name: mark@minddrivers.com  
Password is: 770odg94  
URL being monitored: <http://www.claymont.com>

For more information on InternetSeer, please visit <http://www.internetseer.com>  
and for Claymont.com please visit <http://www.claymont.com>.

Kane Bender  
[Kane@Claymont.com](mailto:Kane@Claymont.com)

If you did not submit your Web site and would prefer not to receive emails  
from Claymont.com put the word "Remove" in the subject line and reply to  
this email without editing the content. If you prefer not to be subscribed  
to InternetSeer for Web site monitoring, you can be removed from this  
service by returning this email with the word "STOP" in the subject line.

1303

FIG. 13

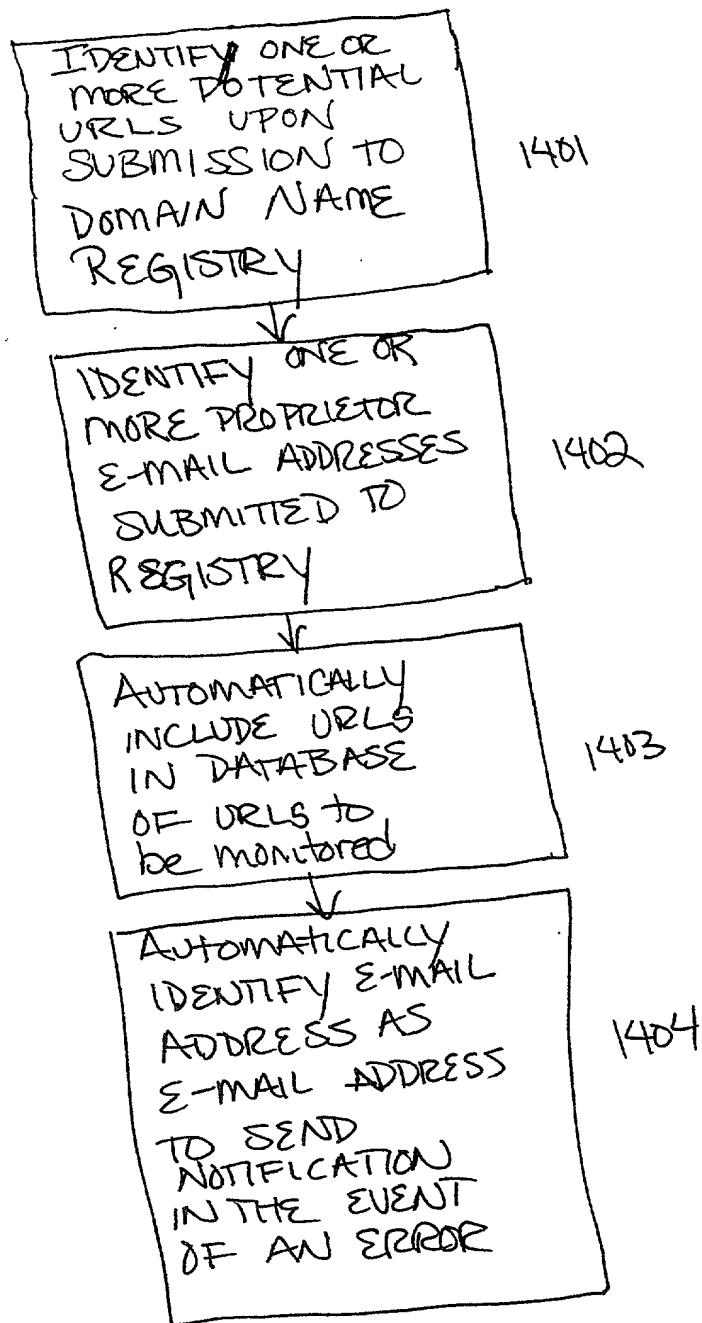


FIG. 14

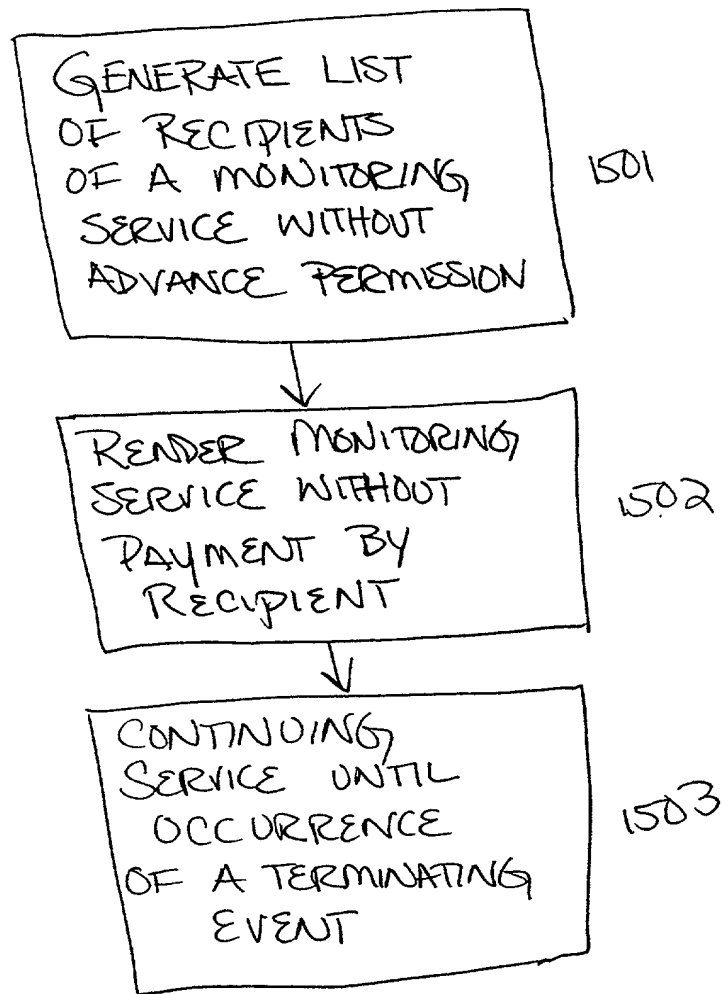


FIG. 15



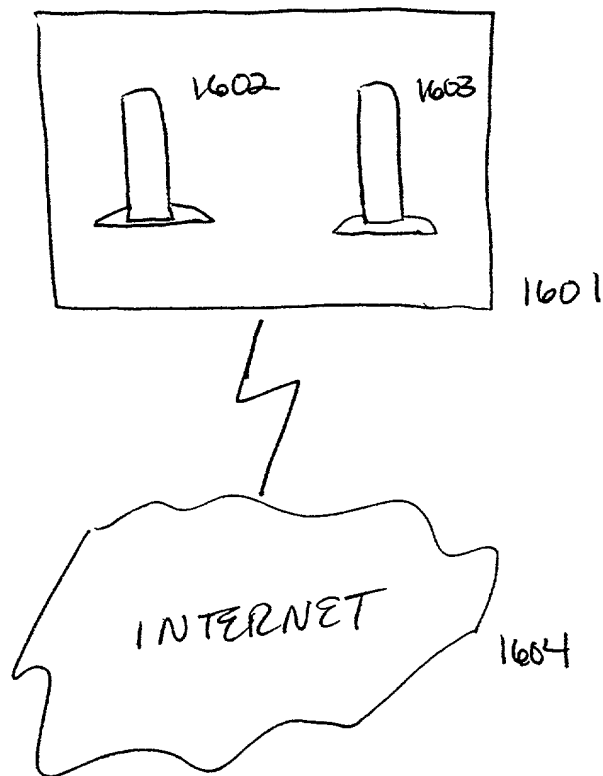


FIG. 16

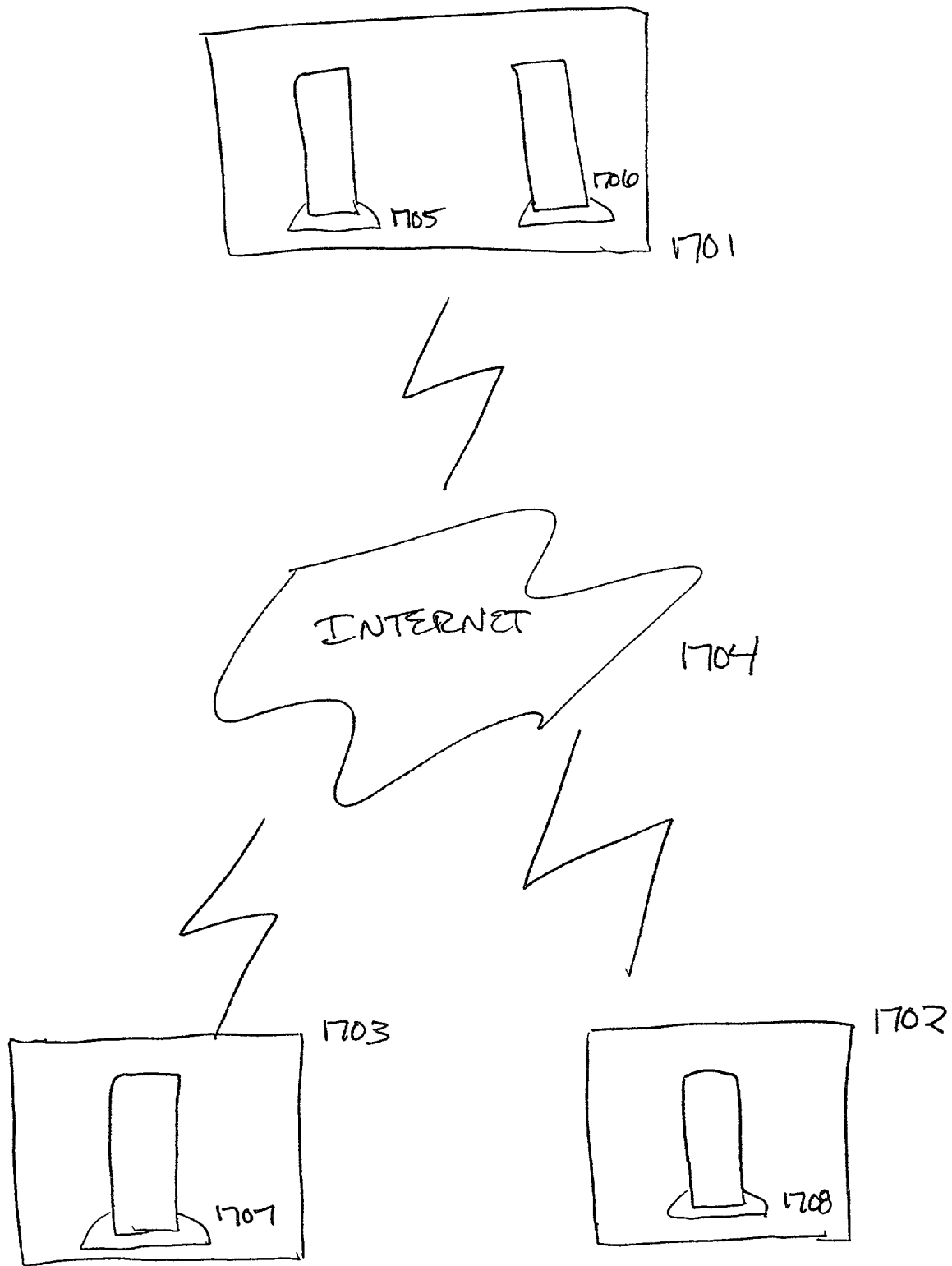


FIG 17

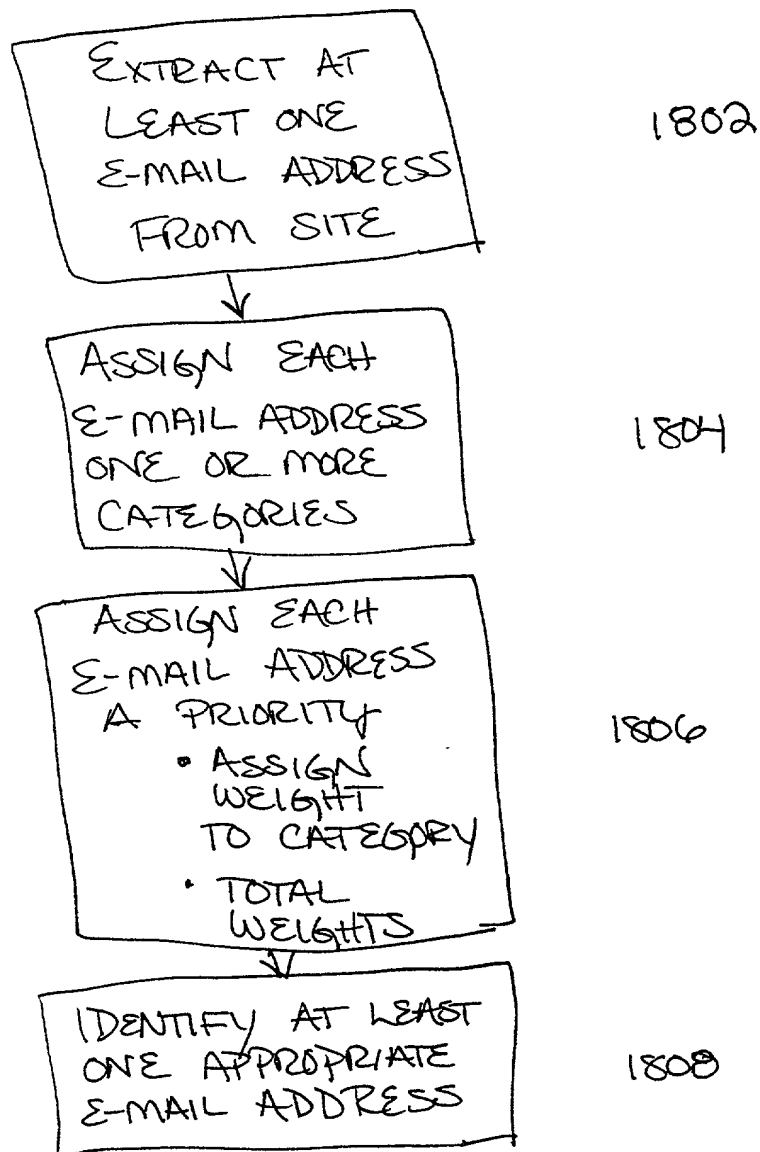


Fig. 18

<http://www.smallbusiness.com/java/showinfo.jsp?product=63452>

Category	Value	Weight
Top level domain	com	3
Keyword	java	1
Dynamic content	yes	1
Query string	yes	-1
File extension	jsp	1

FIG. 19

The diagram illustrates a complex database schema for a system, likely related to web monitoring or security. The schema is organized into several tables, each with its own set of attributes and relationships, indicated by lines and crow's foot notation.

**Tables and Attributes:**

- Category:** category\_id (FK), category\_status\_id (FK), type, description, create\_date, weight, class\_name, status.
- Category Keywords:** category\_id (FK), keyword.
- URL Categories:** category\_id (FK), url\_id (FK).
- URL Keywords:** url\_id (FK), keyword\_id (FK), html, description, active.
- URLs:** parent\_url\_id (FK), child\_url\_id (FK), association\_status\_id (FK), create\_date.
- Association Status:** association\_status\_id, value.
- URL Emails:** email\_id (FK), url\_id (FK), association\_status\_id (FK), page\_position, occurrences, same\_domain, create\_date.
- Monitor Status:** monitor\_status\_id, value.
- Monitor Status History:** history\_status\_id, value.
- History Status:** history\_status\_id, value.
- History:** hist\_id, timestamp, url\_id (FK), history\_status\_id (FK).
- Notification History:** event\_id, hist\_id (FK), message\_id (FK), email\_id.
- Notification Text:** message\_id, type (FK), notification\_type, message\_text.
- Notification Types:** type, desc.
- Signups From Promon:** signup\_id, click\_through\_id (FK), timestamp.
- Click Throughs:** click\_through\_id, event\_id (FK), timestamp.
- Robots Txt:** robots\_txt\_id, host, domain, tid, port, last\_modified.
- Robots Txt Section:** robots\_txt\_id (FK), user\_agent, uri, permission.
- Signups:** id\_name, description, create\_date.
- HTTP Response Status:** response\_status\_id, value.
- Spider Status:** spider\_status\_id, value.
- Exclusion Status:** exclusion\_status\_id, value.
- Config:** key, value.
- TLDs:** id\_name, description, create\_date.

**Relationships and Cardinalities:**

- Category to Category Keywords:** One-to-Many (1:M).
- Category to URL Categories:** One-to-Many (1:M).
- URL Categories to URL Keywords:** One-to-Many (1:M).
- URLs to Association Status:** One-to-Many (1:M).
- Association Status to URL Emails:** One-to-Many (1:M).
- URL Emails to Monitor Status:** One-to-Many (1:M).
- Monitor Status to Monitor Status History:** One-to-Many (1:M).
- Monitor Status History to History Status:** One-to-Many (1:M).
- History Status to History:** One-to-Many (1:M).
- History to Notification History:** One-to-Many (1:M).
- Notification History to Notification Text:** One-to-Many (1:M).
- Notification Text to Notification Types:** One-to-Many (1:M).
- Signups From Promon to Click Throughs:** One-to-Many (1:M).
- Click Throughs to Signups:** One-to-Many (1:M).
- Robots Txt to Robots Txt Section:** One-to-Many (1:M).
- Signups to Signups From Promon:** One-to-Many (1:M).
- HTTP Response Status to Spider Status:** One-to-Many (1:M).
- Spider Status to Exclusion Status:** One-to-Many (1:M).
- Exclusion Status to URL Keywords:** One-to-Many (1:M).
- Config to TLDs:** One-to-Many (1:M).
- TLDs to Signups:** One-to-Many (1:M).

**Temporal Annotations:**

Arrows and numbers indicate temporal relationships or updates over time:

- 2001: Points to the URLs table.
- 2002: Points to the Association Status table.
- 2003: Points to the URL Emails table.
- 2004: Points to the Monitor Status table.
- 2005: Points to the Monitor Status History table.
- 2006: Points to the History Status table.
- 2007: Points to the History table.
- 2008: Points to the Notification History table.
- 2009: Points to the Notification Text table.
- 2010: Points to the Signups From Promon table.
- 2012: Points to the Click Throughs table.
- 2014: Points to the Signups table.

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